

***PHELLINUS ANCHIETANUS* (BASIDIOMYCETES,
APHYLLOPHORALES) SP. NOV. FROM BRAZIL.**

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ABSTRACT *Phellinus anchietae* is described as a new species from Brazil. The species is characterised by a resupinate habit, straight extra-hymenial setae, hooked hymenial setae and small subglobose basidiospores.

KEYWORDS : *Phellinus rufi-tinctus*, *Phellinus uncinatus*, *Phellinus undulatus*, J. Rick, Brazil

RÉSUMÉ Une nouvelle espèce est décrite dans le genre *Phellinus* *Phellinus anchietae*. Cette espèce est caractérisée par un port resupiné, la présence de soies extrahymeniales et de soies hymeniales terminées en crochet et des basidiospores subglobuleuses.

MOTS-CLÉS : *Phellinus rufi-tinctus*, *Phellinus uncinatus*, *Phellinus undulatus*, J. Rick, Brésil.

INTRODUCTION

The Austrian born mycologist J. Rick has made intensive collections of polypores from Brazil. He described numerous new species, whose type specimens have been revised by Raichenberg (1987) and reported also a large number of species, mainly in his serial papers "*Poria Rio-grandensis*", "*Polyporus Rio-grandensis*", "*Polystictus Rio-grandensis*" and, posthumously, in the fourth volume of the monographic serial "*Basidiomycetes Tubasidi in Rio Grande do Sul, Brasil*" (Rick, 1960). His intensive work has appreciably improved our knowledge of the South American polypores flora. The Rick's specimens are preserved at Herbarium Anchieta (PACA), São Leopoldo, Brazil.

During a revision of some polypores specimens of the Rick's herbarium, the authors came across one collection of a *Phellinus* species, identified under *Porai Anchietae* Berkeley & Cooke (Rick, 1960). The species is resupinate and have both hymenial and extra-hymenial setae, the former with a slightly to distinctly hamate apex, besides small (sub)globose basidiospores (< 5 µm).

Within the resupinate species of *Phellinus*, none display the combination of the characters described above. The species is therefore described as new.

MATERIAL AND METHODS

Specimens are examined in Melzer's reagent, KOH 4% and Lactic acid Cotton blue. All microscopic measurements are done in Melzer's reagent. Colour of basidiocarp was described according to Kornerup & Wanscher (1981).

DESCRIPTION

Phellinus anchietanus C. Decock & Ryvarden sp. nov.

Fructificatio resupinata, porifera, res umbrae porifera rotundi, 6-8 per mm, contextus tenuissimus, brunneus, systema hypharum dimitticum, hyphae generatoriae hyalinae ad pallide luteum, aseptatae, hyphae skeletales flavo-brunneae, crassitunicatae, aseptatae. Setae inclusae in trama, ad 70 µm longae, setae hymeniales ferrugineo-fuscae, conicae vel ventricosae, apice acutae, rectae aut saepe curvatae vel hamatae, 14-20 × 6-8-5 µm. Basidiosporae subglobose ad late ellipsoideae, crassitunicatae, non-dextrinoidae, pallidae luteae, 3.75-4.25 × 3-3.75 µm.

Holotypus Brazil, São Salvador, 1942, ad corticem arborum ignotus. Herbarium Anchieta, Florae Brasiliae australis, Fungi Rickiani PACA 18770, leg. J. Rick.

The collection consists in a few fragments of a perennial, resupinate, adnate fructification, reaching 60 × 25 mm. Margin slightly detached, yellowish (light yellow to yellowish orange, 3A4-5 to 4A5-6), velutinous to fibrous. Old margin and tubes carbonaceous, black. General texture woody. Pore surface light brown (6D5, camel to cinnamon) to brown (6F6, cocoa brown) with a greyish tint. Pores very small, round, 6-8/mm², dissepiments entire (to slightly lacerate on sloping part). Tube layer up to 6 mm high, brown to dark brown (6-7E6-7), woody. Context woody, up to 2 mm high, brown (light brown to brownish orange), on places separated from the context by a black line. **Hyphal** system dimittic in both tubes and context. Generative hyphae hyaline to yellowish, thin-walled, few branched, 2-3 µm wide, skeletal hyphae yellowish brown, thick-walled, (with secondary septa), 3-5 µm wide. **Hyphae** sub-parallel in the tube. **Hymenial** setae numerous, conical to commonly ventricose, thick-walled, apex acute, straight or commonly slightly to strongly hamate, (11.3)-14.6-21-(24) × (5.2)-6.2-8.4-(9.8) µm, mono- or rarely bi-rooted, yellowish brown, directly protruding through the hymenium or arising from an hyphal-like stalk, parallel to the tramal hyphae, 9-23 long × 3-4.3 µm width. **Tramal** setae in the sterile margin and in the dissepiments, thick-walled, straight, parallel to the tramal hyphae in the tubes, erected in the sterile margin, up to 70 µm long, 4-7 µm wide, yellowish brown. Basidia not seen. Basidiospores (hyaline) to pale yellowish (pale yellowish brown in mass), slightly thick-walled, broadly ellipsoid to subglobose, not dextrinoid, not cyanophilic, 3.75-4.25 × 3-3.75 µm.

Holotype Brazil, São Salvador, 1942, on bark of an undetermined angiosperm. Herbarium Anchieta, Florae Brasiliae australis, Fungi Rickiani PACA 18770, leg. J. Rick.

DISCUSSION

The combination of a resupinate habit, presence of tramal and hymenial setae, the latter straight to commonly apically curved to distinctly hamate, and small, subglo-

bose, coloured basidiospores are unique within the genus and make the species distinct. Within the resupinate species of *Phellinus*, *Ph. anchieta* is close to *Ph. rufi-tinctus* (Berkeley & Curtis ex Cooke) Patouillard. Both species possess hymenial and extra-hymenial setae, the latter in the sterile margin and in the tube walls. Although, *Ph. rufi-tinctus* differs from our species by longer (up to 35 µm long) apically straight hymenial setae and ellipsoid, thin-walled, hyaline basidiospores (Ryvarden & Johansen, 1980, Larsen & Cobb-Pouille, 1990). Similar hooked setae are found in a few resupinate species of *Phellinus* i.e. in *Ph. undulatus* (Murrill) Ryvarden and *Ph. uncinatus* Rajchenberg (1987), but both species lack extra-hymenial setae. *Ph. undulatus* share with *Ph. anchieta* the same fruitbody, hamate hymenial setae and small subglobose, slightly thick-walled, coloured basidiospores (Ryvarden & Johansen, 1980, David & Rajchenberg, 1985, Loguercio Leite & Wright, 1995). *Ph. uncinatus* has larger and dextrinoid basidiospores which rules out immediately that species.

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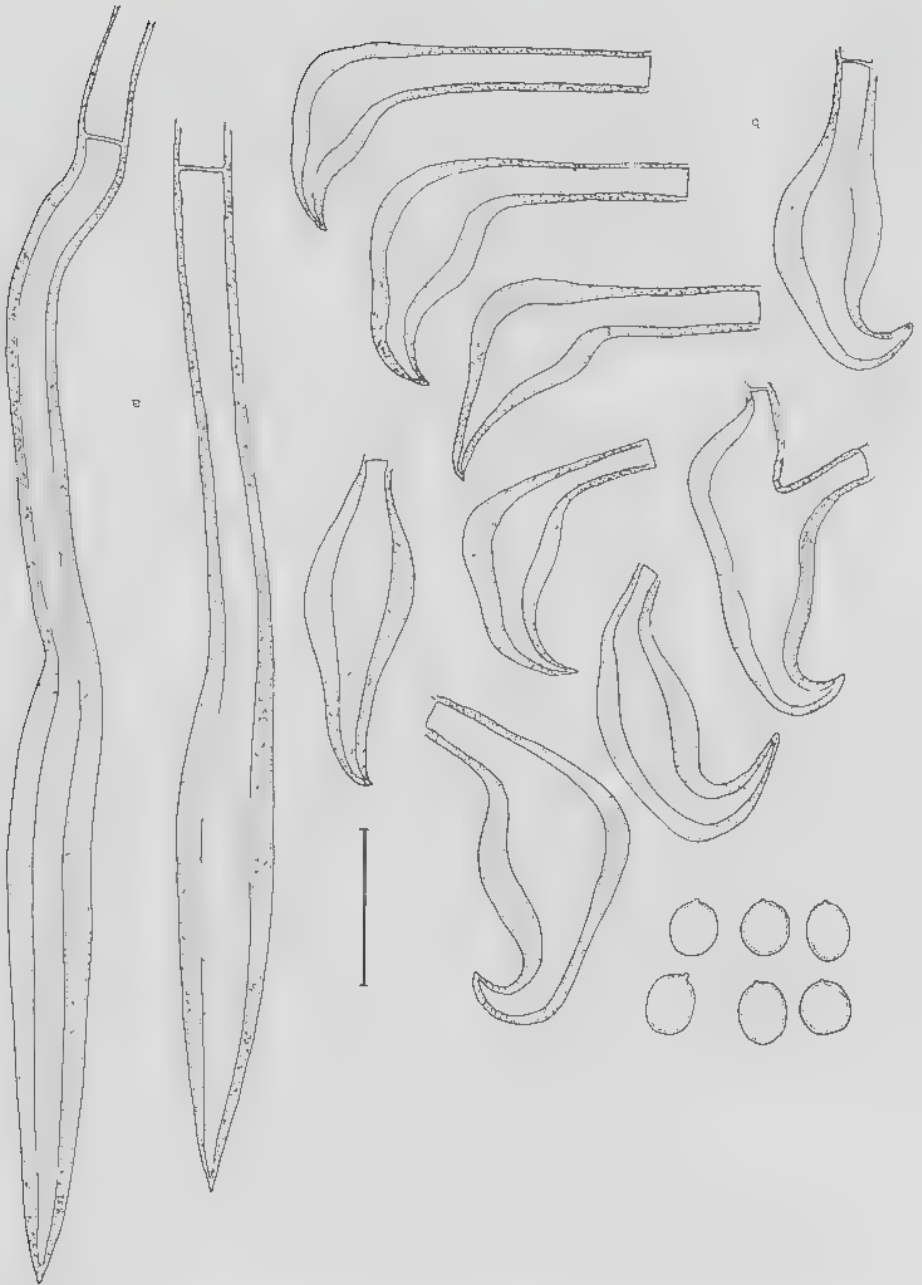


Fig. 1. *Pheletinus anchietanus*, no.otype. a. Extra-hymenial setae, b. Hymenial setae, c. Basidiospores. Scale bar = 10 μ m.



Fig. 7. *Phellinus anchietanus* holotype. a. Hymenial setae, scale bar = 25 μ m, b. Hymenial setae, scale bar = 20 μ m